CHAPTER VII
SCRAP MERCHANDISING

A. GENERAL

1. Scrap should be merchandised in such a way as to maximize net benefits to the Government. Major factors which affect those benefits include the efficiency and cost-effectiveness of scrap yard operations, the method of sale selected, the quantity/type of scrap offered for sale, how well the scrap is described when offered, how well the scrap is displayed, how well the scrap conforms to industry standards, and cost avoidance achieved through sale (in lieu of abandonment and destruction in an environmentally acceptable manner). Although there have been some constraints placed on the extent to which DoD is authorized to prepare scrap within CONUS, sales proceeds can be significantly increased by better identification and segregation of the scrap and by minimizing contaminants.

2. Scrap should be upgraded to usable items whenever it appears that the additional proceeds generated will offset the costs involved, after considering the quality of the scrap and the type and number of buyers likely to be attracted.

3. Personnel responsible for DoD scrap yard operations should understand that scrap dealers and brokers are indispensable to the efficient operation of the scrap recycling industry. Thus, close cooperation among dealers, brokers, and the Federal Government in a joint effort to ensure orderly flow of DoD scrap to the recycling industry is in the best interest of all concerned. DoD scrap yard personnel should also be aware of the fact that the scrap market is just as volatile and unpredictable as the stock market. Therefore, to counterbalance the effect of market swings, scrap sales should be conducted on a steady schedule at monthly or quarterly intervals.

B. PRINCIPAL TYPES OF SCRAP SALES

1. Scrap is usually offered on a one-time or a term sale. From a merchandising point of view, one-time sales will usually provide the best return. However, when impacted storage space or other circumstances make one-time sales impracticable, it may be necessary to offer ferrous and nonmetallic scrap by term sale. Nonferrous scrap normally should not be offered on term sale.

2. If a term sale is necessary, the selling activity should consider specifying that the bid price be a percentage of the average market price as published periodically in a designated journal. By thus gearing the bid to the published market price, the gamble is removed for both the Government and the buyer. Term sales are normally of a 1 year duration.

C. OPTIMUM LOT SIZE

The optimum sales lot size is that quantity of a particular scrap material which, when sold, yields the greatest net proceeds/benefits. Each scrap yard should determine the optimum lot sizes for its own scrap generations. Optimum lot sizes will vary by scrap grade/classification and scrap location; and there may be several optimum lot sizes within a standard grade, especially within the ferrous scrap category (e.g., cast engine blocks, tank tracks, cast steam radiators). Once established, optimum lot sizes should then be updated periodically to reflect current markets. Merchandising by optimum lot size results in optimum proceeds and is well worth the effort required. Factors which should be taken into consideration when determining optimum lot sizes include

1. *Type of Scrap Received*. In view of the low return per ton received from sale of ferrous scrap, a relatively large optimum lot size (e.g., railcar, bargeload, shipload) may be required to offset transportation costs. Nonferrous and nonmetallic scrap, on the other hand, requires smaller optimum lot sizes (truckload quantities. or less) because of its greater relative value.

2. *Amount of Scrap Received*. Large receipts of scrap may warrant larger optimum lot sizes. Conversely, if only small quantities are received during a lengthy period, it would be unwise to have a large optimum lot size.

3. *Amount of Storage Space Available. Al*though a larger lot size may be optimum in terms of proceeds, a DoD scrap yard may not be able to store that quantity of scrap because of the limited space available at the scrap yard (e.g., sufficient covered storage may not be available for paper scrap). In this case, a smaller lot size would be

optimum, or term sales may be necessary to keep scrap inventories manageable.

4. *Type of Loading Facilities Available.* If rail or waterway facilities are available consideration should be given to lotting scrap in railcar, barge-load, or even shipload quantities. When considering use of rail or waterway transportation, scrap yard managers should check for any applicable load weight limitations, possible obstructions to safe loading, availability/reliability of loading equipment, and availability of suitable scales.

5. *Extent of Contamination or Commingling.* It may take larger lot sizes to stimulate an adequate number of bidders when scrap is heavily contaminated or not properly segregated. Conversely, carefully segregated, uncontaminated and accurately identified scrap will generate greater buyer interest with smaller lot sizes.

6. *Presence/Absence of Local Markets.* Optimum lot size may be dictated by the availability of a local market. For example, a large lot size may be needed to attract distant bidders because of the absence of a local market; but lot size may not be as important in areas of high local demand.

7. *Market Condition.* In periods of low overall demand for scrap, a buyer may not be willing to invest in a large quantity of scrap that he may have to sell later at a loss. In this case, smaller lot sizes may actually bring better proceeds because of the buyer's ability to quickly resell the scrap and maintain minimum inventories.

8. *Frequency of Sales.* This factor, which is heavily dependent on the previous ones, can also have an independent influence on lot size. For example, if a scrap yard has one scrap sale a month, lot sizes may be smaller than if it has a sale only once a quarter.

9. *Past Sales Experience.* This is a crucial factor in determining optimum lot size. DoD scrap personnel must be familiar with their past sale results to determine which size lot yielded the highest net return. However, the market is constantly changing and optimum lot size should not be based solely on past sale history. Furthermore, past sales history can be misleading because of variances between sale items, especially with respect to percentage of contamination, and accuracy of scrap identification.

D. SCRAP DESCRIPTIONS

Accurate sales descriptions are absolutely essential to effective merchandising of scrap. Buyers cannot be expected to pay top prices for scrap unless it is accurately and completely described in language commonly used in the scrap recycling industry. Scrap buyers first want to know the basic material content of the item (noun name), then any important qualifications they should know about (noun name modifiers), and finally a more detailed description so they can tell if the particular item fully meets their needs. However, buyers may not even read the item description unless their interest is first stimulated by reading the catalog index.

1. *Scrap Catalog Index.* Many prospective buyers first scan the catalog index rather than search through pages of detailed descriptions. Hence, they may not respond to a scrap catalog simply because they read no further than the index, only to learn later that some of the scrap described in the catalog was what they wanted. Subindexing of items, where appropriate, immediately notifies buyers that a type of scrap in which *they might be interested is being* offered. For example, scrap batteries, textiles, petroleum products, high temperature alloys, brass, and stainless steels should be listed separately in the index. It is the index—which is equally as important as good sales descriptions—that will initially stimulate buyer interest and response, as illustrated below:

Item	Item No.
Brass:	
Red	**35, 63,82**
Small Arms:	
Fired:	
.38 Caliber	2, 13, 14
.45 Caliber	22, 28, 32
9.00 mm	62,74
Popped	24, 55,79
Yellow	36, 54, 96
Steel:	
Heavy, Unprepared	77, 88,104
Light & Heavy, Unprepared	66, 68, 102

2. Basic *Noun Name.*

a. The basic noun name or phrase should establish an immediate concept in the potential buyer's mind of the type of scrap being offered, and it should be the first word(s) used in the sales description. To illustrate:

Preferred:	STEEL, HEAVY, UNPREPARED SCRAP
	TABULATING CARDS, MANILA; SCRAP
Not Preferred:	UNPREPARED HEAVY MELTING STEEL SCRAP
	SCRAP TABULATING CARDS, MANILA:

b. When the material content of a scrap item cannot be categorized as a single basic material because it is a composed of several basic materials, first identify the product from which it was derived. Then, list the principal materials it contains. To illustrate:

RADIATORS, SCRAP: Containing copper coils, aluminum fins, and with other nonferrous and ferrous attachments.

RAGS, MIXED, SCRAP: Includes 50% cotton ground targets and clothing, 30% wool and 20% nylon. Some with metallic and nonmetallic attachments consisting of snaps, buttons, etc., not to exceed 2% of total weight.

c. When a variety of scrap which is closely related is being offered as a single sale item, describe the scrap as miscellaneous. Then identify some of the items in the description. To illustrate:

Miscellaneous Electrical and Electronic, Scrap: Including cabinets, chassis and radio equipment.

However, never describe scrap offerings as miscellaneous if they can be better segregated or more accurately described.

3. *Noun Name Modifier(s).*

a. Modifier(s), indicating a state or degree of differentiation, should follow the basic noun name or phrase in the scrap description. To illustrate:

COPPER, #1 HEAVY, SCRAP:
COPPER, MIXED HEAVY, SCRAP:
STEEL, HEAVY, PREPARED, SCRAP:
STEEL, LIGHT, UNPREPARED, SCRAP:
CAST IRON, BURNT, SCRAP:
CAST IRON, CUPOLA GAST, SCRAP
TABULATING CARDS, MANILA, SCRAP:
TABULATING CARDS, MIXED COLORS, SCRAP:
ALUMINUM, SHEETS AND CLIPPINGS, SCRAP:
ALUMINUM, TURNINGS AND BORINGS, SCRAP:
BRASS, VALVES, SCRAP:

b. Some words, which appear to be modifiers, are actually part of the noun name and should therefore not be separated from it. To illustrate:

Preferred:	IRONY ALUMINUM SCRAP RED BRASS, SCRAP LEAD BATTERIES, SCRAP
Not Preferred:	ALUMINUM, IRONY, SCRAP BRASS, RED, SCRAP BATTERIES, LEAD, SCRAP OR LEAD, BATTERIES, SCRAP

c. The word “SCRAP” should normally appear as the final word of the nomenclature in order to prevent any reader from misunderstanding the fact that the material being offered is scrap and not usable property.

4. *Descriptive Data.*

a. Following the basic nomenclature, detailed descriptive data should be added, as warranted, to convey to the reader-buyer as complete a mental picture of the item as is possible. For example, including relevant details-type of property, cleanness, classification or suitability for preparation into a standard scrap grade, size, packed or loose, drained or undrained, kind and percentage of foreign attachments-will help to complete the picture for the buyer. To illustrate:

STEEL, HEAVY, UNPREPARED SCRAP Consisting of railroad rails, 16’ to 33’ lengths, some suitable for rerolling into bars and shapes, others suitable for preparing into # 2 Steel Rails. With foreign matter consisting of stones and dirt not to exceed 3% of total weight.

BRASS, GRINDINGS AND BORINGS, SCRAP. With foriegn matter, consisting of other nonferrous and ferrous metals not to exceed 5% of total weight.

NYLON, WEBBING, SCRAP Catapult and arresting gear barrier webbing. White, soiled, with cotton stitching. Includes metallic attachments consisting of buckles and snap hooks not to exceed 10% of total weight.

b. Avoid use of the word “contaminated” in describing scrap materials listed for sale. There are many ways we can tell the prospective buyer that material offered requires further preparation on his part without using the word “contaminated.” Some of the more suitable and proper substitutes for this word are foreign attachments, foreign substance, foreign material, with ferrous attachments, with nonferrous attachments, etc.

c. The term “foreign attachments” is not applicable to all items of scrap since many items,

by their nomenclature alone, clearly indicate the existence of such attachments (e.g., insulated copper wire, automobile batteries, copper-bearing materials, irony brass, irony aluminum, miscellaneous electrical and/or electronic material, wrecked aircraft). For example, the term "foreign attachments" would not be appropriate in describing turnings and borings.

d. It is also not necessary to use the term "foreign attachments" in describing scrap which, under standard industry specifications, may contain attachments in allowable amounts. For example, heavy breakable cast iron, one of the cast iron grades classified by the Institute for Scrap Iron and Steel, may include up to 10 percent steel if the steel is an integral part of the casting. In such cases, scrap yard managers should carefully comply with industry specifications with respect to what may be included, what must be excluded, what the off-grade limits are, and the extent of cleanness required for the various grades of scrap.

e. The percentage of each constituent element in an alloy should be included in the scrap description whenever such information is known to be factually correct. This is especially important in describing high temperature alloy scrap (see chapter V).

f. Whenever scrap is loaded on pallets, or packed in drums, engine containers, hoppers or other containers, it is important to inform buyers as to whether or not the containers are included in the sale. When they are included, the sales writer should provide either the estimated net weight of the scrap or the weight of the container.

g. The quantity offered for sale should accurately reflect the amount of scrap actually available. Once a scrap lot is advertised on a one-time sale, there should be no additions to or withdrawals from the lot after the beginning of the inspection period. Any scrap received thereafter should be included in the next sale. When selling scrap on term sale, care should be taken not to add excessive or unusual amounts of nonrecurring scrap to the pile which was not part of the contract. Except in areas where metric weights are generally used, ferrous scrap should be sold by the gross ton; nonferrous, by the pound; and nonmetallic, by the net ton.

h. After a scrap item has been placed on a sales offering, any exceptions, corrections or withdrawals that develop prior to bid opening should be announced by issuance of an amendment prior to sale.

5. *Display*. Proper display of scrap can add significantly to proceeds received. Scrap bins should be clean and properly maintained; and care should be taken to preclude any contamination of scrap stored therein. When possible, nonferrous scrap should be stored in containers or on pallets to allow for easy inspection; and each scrap lot should be listed in the sales catalog in the same location sequence in which they appear in the scrap yard. It is important that the scrap yard manager, or another knowledgeable scrap yard employee, escort prospective buyers during their inspection of scrap and that they be fully prepared to answer any questions buyers may ask. This association with buyers will also provide scrap yard personnel an opportunity to become more familiar with recycling industry terminology and with buyers' needs and concerns.

E. SCRAP MARKET RESEARCH

Scrap market research is the systematic analysis of sales methods, market area, price trends, merchandising techniques, alternate usage data, and buyer interests for the purpose of improving scrap proceeds. Research on unusual, special, or hard-to-sell scrap can increase proceeds and possibly eliminate the need for costly abandonment and destruction. DoD scrap personnel actively engage in market research whenever they evaluate past sale results, seek new bidders, develop optimum lot sizes, or determine alternate uses for scrap. Market research involves a knowledge of the product, an understanding of the customer, and a knowledge of the market.

1. *Knowledge of the Product.* The scrap yard supervisor must have a thorough knowledge of the type of scrap being offered if it is to be merchandised in a manner which will maximize net benefits to DoD. This knowledge can be enhanced by consulting the references listed in Appendix 4, by visiting private sector scrap yards, and by conferring with experienced scrap recyclers.

2. *Understanding the Customers.* In CONUS, scrap dealers (or scrap processors)-not the mill, foundry, or ultimate recycler—are normally the buyers of DoD scrap. These dealers will usually base their bid price on two factors (a) what they can resell it for, and (b) what they believe their competitors will bid. After inspecting scrap offered for sale, dealers can determine what price the item will bring and then determine the various costs they must incur (e.g, packing, transportation, and further processing) prior to resale. In a rising market, scrap dealers are usually optimists; and in a falling market, they are probably pessimists. But from the point of view of DoD, they should be considered as realists who will pay (if there is

sufficient competition) whatever the scrap is worth at the time of a bid opening.

3. *Knowledge of the Market.* 'l'he size of a scrap lot will have a distinct bearing on its marketability. For example, a truckload of high value nonferrous scrap may command national or international interest, but this amount of ferrous scrap will attract only local dealer interest. Supply and demand for various grades of scrap, which varies from month to month, will also influence optimum lot sizes, It is therefore essential that scrap yard managers keep abreast of local, national and international market developments by reading scrap trade periodicals, and that they use this information in merchandising their scrap.